

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

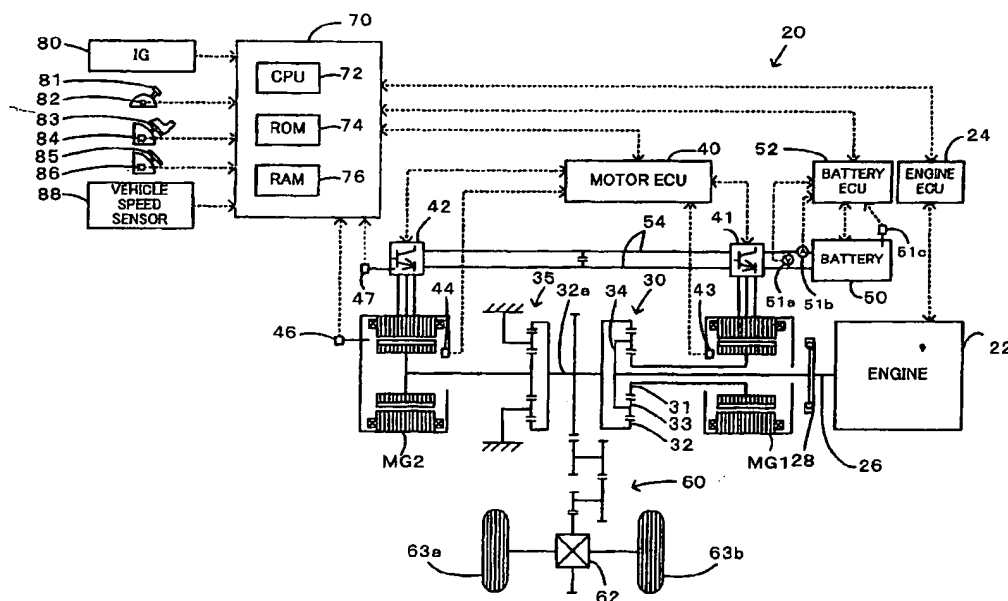
PCT

(10) International Publication Number
WO 2005/007440 A1

- (51) International Patent Classification⁷: **B60K 6/04** (74) Agent: **ITEC INTERNATIONAL PATENT FIRM;**
Pola-Nagoya Bldg., 9-26, Sakae 2-chome, Naka-ku,
Nagoya-shi, Aichi 4600008 (JP).
- (21) International Application Number:
PCT/JP2004/008694
- (22) International Filing Date: 15 June 2004 (15.06.2004) (81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AI, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GI, GM, GR, GU, HN, ID, IL, IN, IS, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
2003-200030 22 July 2003 (22.07.2003) JP
- (71) Applicant (for all designated States except US): **TOY-
OTA JIDOSHA KABUSHIKI KAISHA [JP/JP];** 1, Toy-
ota-cho, Toyota-shi, Aichi 471857 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HOSHIBA, Takeshi**
[JP/JP]; c/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-
cho, Toyota-shi, Aichi 471857 (JP). **NADA, Mitsuhiro**
[JP/JP]; c/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-
cho, Toyota-shi, Aichi 471857 (JP).
- (84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: POWER OUTPUT APPARATUS FOR HYBRID VEHICLE



(57) Abstract: A hybrid vehicle of the invention has an engine, a planetary gear unit including a carrier linked with rankshaft of the engine and a ring gear linked with a drive shaft, a motor MG1 inputting and outputting power to and from a sun gear of the planetary gear unit, and a motor MG2 inputting and outputting power to and from the drive shaft. During a drive of the hybrid vehicle in a light load state and under a drive restriction of the motor MG2, the hybrid vehicle corrects a target revolution speed N_{c*} of the engine to make a calculated average charge-discharge electric power W_{bave} of a battery equal to a charge-discharge electric power demand W_{b*} , while keeping a torque of the engine unchanged (steps S300 to S330), and controls actuation of the engine and the motors MG1 and MG2.



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.